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UNITED STATES PATENT AND TRADEMARK OFFICE

Appl. no. 09/954,596   Filed: September 12, 2001

Art unit: 2183   Confirmation no.:   8857

Attorney docket no. FREI P033-2   Applicant: Gunzinger, Anton

For: A method for rapid communication within a parallel computer system etc.

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This paper is being filed by fax 703-746-7239 on January 23, 2002.

Carl Oppedahl

Carl Oppedahl

RESPONSE TO OFFICE ACTION

Kindly amend the claims as follows:

Cancel claims 1-15, conditioned upon entry of the following new claims:

16. A method of operating a parallel computer system having at least first and second processor elements, each processor element comprising a processor, a local program memory, a local data memory, a communications manager and an operating system, within each processor element the local program memory, local data memory, and communications manager all communicatively coupled by means of a common bus; the communications managers of the at least first and second processor elements communicatively coupled by means of a message-passing communications network; the processor elements each executing an application; each communications manager further comprising predefined values indicative of global addresses in which the application of the processor element is interested; the method comprising the steps of:

writing, by the processor of the first processor element, by means of the common bus of the first processor element, a result of a computation into the communications manager of the first processor element;

adding, by the communications manager, a global address to the result of the computation;

propagating, on the message-passing communications network, a message comprising the global address and the result of the computation;

receiving the message, via the message-passing communications network, by the communications manager of the second processor element;

comparing, by the communications manager of the second processor element, the global address with the predefined values for a match;